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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,096	02/21/2002	Ralf Wolleschensky	GK-ZEI-3156/500343.20157	2875

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REED SMITH, LLP  
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599 LEXINGTON AVENUE, 29TH FLOOR  
NEW YORK, NY 10022-7650

EXAMINER

GABOR, OTILIA

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/081,096

Applicant(s)

WOLLESCHENSKY ET AL.

Examiner

Otilia Gabor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: there is no page number designation on the first page and the sheet containing the abstract; also there is no page 20 present; spelling error on page 19, line 16 "nondecanned"

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-25, 28-36, 38-40 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Xiao (U. S. Patent 5537247).

Xiao discloses an arrangement 10 used with a laser scanning wide field microscope 11 for optical detection of fluorescent light emitted by an excited specimen 70, the arrangement comprising:

- means (optical lens, mirror, beam splitter, etc.) 39, 55, 30, 41, 44, 32 for focusing the illumination light 81 from a laser source 20 onto the specimen 70
- an optical objective lens 34 which is displaceable vertical along the optical axis (see Fig.1)

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- a system 50 (apparatus) positioned between the detection plane (detector 21, 22, pupil) and the specimen plane 72 provided to spatially separate the illumination light 81 from the detection light (82, 84), (see abstract)
- detector 21, 22 for detecting the fluorescent light coming from the specimen.

The spatial separator 50 can take the form of an aperture plate with a hole in the middle or as a plate made of a transparent substrate coated on one side 52 with an opaque film to reflect the incident light, and a clear region 51, which is the only part that transmits the incident light. The plate 50 could also take the form of the beam splitter 55 acting as a spatial separator. Either embodiment will serve to spatially separate the illumination and the fluorescent light. Different scanning methods are disclosed, one of which is moving the stage 72 on which the specimen 70 is positioned or moving the objective lens 34 in order to change the focal position 71 of the incident beam and thus varying the length of the scanning line, or using a galvanometer scanner 60 where by changing the orientation of the reflector plates 62 and 63 a two-dimensional scanning is obtained (descanned detection), and by only rotating reflector either plate 62 or 63 scanning in only one direction is obtained (partially descanned detection), or the illumination light does not travel through any scanner but is viewed in the port of the microscope (nondescanned). By changing the position of the device 50 an oblique illumination is obtained whereby some of the scattered radiation is eliminated. With this system a high-resolution three-dimensional imaging of the specimen is obtained (thus depth-resolved detection). Also since the illumination light is focused in one point 71 and not in an

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expanded beam zone, the illumination is considered structured and the detection is of specific areas in the specimen. See Figs.1, 6.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 26, 27, 37, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xiao.

Regarding claims 26, 27, 37 Xiao fails to disclose the specific optical elements as claimed with which the scanning is done and the scanning line length is changed, however since he discloses that the optical elements as disclosed can be substituted with any other optics that fulfills the same function and since the claimed elements are

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well known in the field, it would have been obvious to one of ordinary skill in the art to use the claimed optical elements.

Regarding claim 41 Xiao fails to use a CCD camera as the detector, however since he does not specify or limit the type of detector to be used in his system and since CCD cameras are well known and used in the art for fluorescence detection it would have been obvious to one of ordinary skill in the art to use a CCD camera for it constitutes only a matter of design choice.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Simon et al. (U. S. Patents 6356088, 6462345), Hamashima et al. (U. S. Patent 4769551), Uhl (U. S. Patent 6088097).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otilia Gabor whose telephone number is 703-305-0384. The examiner can normally be reached on Monday-Friday between 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 703-308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

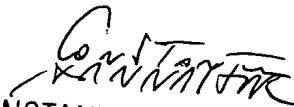
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June 13, 2003

  
CONSTANTINE HANNAHER  
PRIMARY EXAMINER  
GROUP ART UNIT 2878